

2004P03943 - Application No. 10/587,506  
Response to Office action July 7, 2009  
Response submitted September 8, 2009

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-7 remain in the application. Claims 1-7 have been amended. Claims 8 and 11-16 are being cancelled herewith. Claims 9 and 10 were previously cancelled.

In item 5 on page 3 of the Office action, claims 1, 3, 4, 7, and 8 have been rejected as being fully anticipated by Schlecht et al. (U.S. Patent No. 5,605,174) (hereinafter "Schlecht") under 35 U.S.C. § 102.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. The claims are patentable for the reasons set forth below. Support for the changes is found on page 1, lines 5-6 and page 2, lines 17-18 of the specification. No new matter has been added.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

a solid/liquid interface in the spallation target, the solid/liquid interface having a liquid facing surface, the surface having smooth and non-smooth structures, the non-smooth structures disposed for maintaining gas bubbles proximate to the surface.

On page 4 of the Office action, the Examiner alleges that "a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure."

It is noted that while the statement by the Examiner is an accurate statement with respect to a preamble in general, it is not applicable to claim 1 of the instant application. More specifically, claim 1 recites a window "In a pulsed neutron source". As seen from section 63 of Landis on Mechanics of Patent Claim Drafting (*In re Dean* 130 U.S.P.Q. (BNA) 107 (C.C.P.A. 1961), a claim beginning with "In a" is a proper combination/subcombination claim. Accordingly, because claim 1 of the instant application recites "In a pulsed neutron source" it is a proper combination/subcombination claim. Therefore, the statement by the Examiner with respect to a preamble is not applicable to claim 1 of the instant application.

Schlecht discloses a conveyor for thick substances containing a great deal of solids. Schlecht does not disclose a window in a pulsed neutron source having a spallation target.

As seen from the above-given remarks, the reference does not show in an pulsed neutron source having a spallation target, a window including a solid/liquid interface in the spallation target, the solid/liquid interface having a liquid facing surface, the surface having smooth and non-smooth structures, the non-smooth structures disposed for maintaining gas bubbles proximate to the surface, as recited in claim 1 of the instant application. Schlecht discloses a conveyor pipe. This is contrary to the present invention as claimed, which recites a solid/liquid interface in the spallation target, the solid/liquid interface has a liquid facing surface, the surface has smooth and non-smooth structures, the non-smooth structures disposed for maintaining gas bubbles proximate to the surface.

Since claim 1 is allowable over Schlecht, claims 3, 4, and 7 are allowable over Schlecht as well.

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In item 6 on page 4 of the Office action, claims 1-8, 11, 12, and 14-16 have been rejected as being fully anticipated by Fulton (U.S. Patent No. 3,827,388) under 35 U.S.C. § 102.

The above-noted remarks with respect to the preamble of claim 1 also apply to Fulton.

Fulton discloses that an elongated water borne vessel includes a series of upwardly rising steps extending from the full depth at the ship rearwardly to just below the water line proximate to the stern. Therefore, Fulton does not disclose a window in a pulsed neutron source having a spallation target.

As seen from the above-given remarks, the reference does not show in an pulsed neutron source having a spallation target, a window including a solid/liquid interface in the spallation target, the solid/liquid interface having a liquid facing surface, the surface having smooth and non-smooth structures, the non-smooth structures disposed for maintaining gas bubbles proximate to the surface, as recited in claim 1 of the instant application. Schlecht discloses a hull of a ship. This is contrary to the present invention as claimed, which recites a solid/liquid interface in the spallation target, the solid/liquid interface has a liquid facing surface, the surface has smooth and non-smooth structures, the non-smooth

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structures disposed for maintaining gas bubbles proximate to the surface.

Since claim 1 is allowable over Fulton, claims 2-7 are allowable over Fulton as well.

In item 7 on page 5 of the Office action, claims 1-8 and 11-16 have been rejected as being fully anticipated by Petrov et al. (U.S. Patent No. 3,659,542) (hereinafter "Petrov") under 35 U.S.C. § 102.

The above-noted remarks with respect to the preamble of claim 1 also apply to Petrov.

Petrov discloses a craft in which the bottom between the board keels is provided with steps located at a definite distance one from another and forming a stable air-cushion under the bottom of the craft. Therefore, Petrov does not disclose a window in a pulsed neutron source having a spallation target.

As seen from the above-given remarks, the reference does not show in an pulsed neutron source having a spallation target, a window including a solid/liquid interface in the spallation target, the solid/liquid interface having a liquid facing surface, the surface having smooth and non-smooth structures,

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the non-smooth structures disposed for maintaining gas bubbles proximate to the surface, as recited in claim 1 of the instant application. Petrov discloses a hull construction for a ship. This is contrary to the present invention as claimed, which recites a solid/liquid interface in the spallation target, the solid/liquid interface has a liquid facing surface, the surface has smooth and non-smooth structures, the non-smooth structures disposed for maintaining gas bubbles proximate to the surface.

Since claim 1 is allowable over Petrov, claims 2-7 are allowable over Petrov as well.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-7 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone

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call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,

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